

BIOL 2301-2A1, 2B1, 2C1
Anatomy & Physiology I Lecture
Spring 2026

CREDIT

3 Semester Credit Hours (Web-Based)



**LAMAR INSTITUTE
OF TECHNOLOGY**

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

Passed the Reading/Writing Sections of TSI or any other accepted test.

Co-requisite Biol 2101

COURSE DESCRIPTION

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous, and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Identify modern technology and tools used to study anatomy and physiology.

CORE OBJECTIVES

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills:** To include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical & Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork:** To include the ability to connect choices, actions, and consequences to ethical decision-making

Approved: **Initials/date**

INSTRUCTOR CONTACT INFORMATION

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Instructor: **Zachary T Grimes, PhD**
Email: **zgrimes@lit.edu**
Office Phone: **NA – online adjunct**
Office Location: **NA – online adjunct**
Office Hours: **NA – online adjunct – email for appointment**
See Starfish for Available Office Hours
[Click Here for Starfish](#)

REQUIRED TEXTBOOK AND MATERIALS

REQUIRED = Textbook - OpenStax Anatomy & Physiology Levels I and II

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,

[Click Here for OpenStax Anatomy & Physiology textbook](#)

Your textbook for this class is available for free online and a print copy, can be purchased online, or obtained through Eagle Learning Essentials. [Click Here for Eagle Learning Essentials](#)

Supplemental = Textbook - WikiBooks – Human Physiology

https://en.wikibooks.org/wiki/Human_Physiology

ATTENDANCE POLICY

1. You must log into Blackboard and access this course a minimum of 3 times per week.
2. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
3. If you wish to drop this course, you must drop it administratively. If you do not drop, you will receive an F for the course.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#) located on the college's [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

BIOL 2301 Tentative Weekly Checklist Spring 2026

Week:	To Do:	Due Date:
<u>Week 1</u> Jan 20 th – 23 rd Introduction Directional Terms Study of Life <u>Total Video Time:</u> 18 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 1: Introduction <input type="checkbox"/> Discussion Board 2: Netiquette <input type="checkbox"/> Syllabus Quiz/Syllabus Acknowledgement <ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Introduction to Anatomy & Physiology (Chapter 1) [11 minutes] <input type="checkbox"/> Video Quiz: Directional Terms (Chapter 1) [3 minutes 15 seconds] <input type="checkbox"/> Video Quiz: Body Planes (Chapter 1) [1m 35s] <input type="checkbox"/> Video Quiz: Body Cavities (Chapter 1) [1m 26s] <input type="checkbox"/> Discussion Board 3: Regional & Directional Terms <input type="checkbox"/> Read OpenStax A&P Chapter 1 <input type="checkbox"/> Look over instructions for Individual Project (Health Science Career Poster) due 03.06.26 <input type="checkbox"/> Join a group for Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 01.23.26
<u>Week 2</u> Jan 26 th – 30 th Elements, Cells, Tissues <u>Total Video Time:</u> 5 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Elements of the Human Body (Chapter 2) [1 m 52 s] <input type="checkbox"/> Video Quiz: Levels of Organization in the Body (Chapter 3) [2m 45s] <input type="checkbox"/> Read OpenStax Chapter 2 <input type="checkbox"/> Read OpenStax Chapter 3 <input type="checkbox"/> Work on Individual Project (Health Science Career Poster) due 03.06.26 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 02.01.26
<u>Week 3</u> Feb 2 nd – 6 th Elements, Cells, Tissues <u>Total Video Time:</u> 18 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Cell Structure (Chapter 3) [7m 22s] <input type="checkbox"/> Video Quiz: Tissues (Chapter 4) [10m 43s] <input type="checkbox"/> Quiz 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues) <input type="checkbox"/> Read OpenStax Chapter 4 <input type="checkbox"/> Work on Individual Project (Health Science Career Poster) due 03.06.25 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 02.06.26 <input type="checkbox"/> Quiz 1 opens 02.6.26 and closes 02.08.26
<u>Week 4</u> Feb 9 th – 13 th Integumentary System <u>Total Video Time:</u> 10 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 4: Integumentary <input type="checkbox"/> Video Quiz: Integumentary System (Chapter 5) [9m 40s] <input type="checkbox"/> Read OpenStax Chapter 5 <input type="checkbox"/> Work on Individual Project (Health Science Career Poster) due 03.06.26 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 02.15.26
<u>Week 5</u> Feb 16 th – 20 th Complete Integumentary	<ul style="list-style-type: none"> <input type="checkbox"/> Quiz 2: Chapter 5 (Integumentary) opens 02.18.26 and closes 02.20.26 <input type="checkbox"/> Work on Individual Project (Health Science Career Poster) due 03.06.26 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 <input type="checkbox"/> Read OpenStax Chapter 5 	<input type="checkbox"/> Quiz 2 due 02.20.26

Approved: **ZTG_120825**

<u>Week 6</u> Feb 23 rd – 27 th <u>Skeletal System & Joints</u> <u>Total Video Time:</u> 18 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 5: Skeletal System Anatomy & Osteoporosis <input type="checkbox"/> Video Quiz: Skeletal (Chapter 6) [7m 59s] <input type="checkbox"/> Video Quiz: Axial vs. Appendicular Skeleton (Chapter 7) [3m 19s] <input type="checkbox"/> Video Quiz: What Bones Tell Us (Chapter 8) [6m 26s] <input type="checkbox"/> Read OpenStax Chapter 6 <input type="checkbox"/> Read OpenStax Chapter 7 <input type="checkbox"/> Work on Individual Project (Health Science Career Poster) due 03.06.26 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 03.01.26
<u>Week 7</u> March 2 nd – 6 th <u>Skeletal System & Joints</u> <u>Total Video Time:</u> 20 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 6: Joints <input type="checkbox"/> Video Quiz: Whose Bones Are These? (Chapter 8) [7m 7s] <input type="checkbox"/> Video Quiz: Introduction to Joints (Chapter 9) [2m 52s] <input type="checkbox"/> Video Quiz: Bones and Joints (Chapter 9) [9m 22s] <input type="checkbox"/> Read OpenStax Chapter 8 <input type="checkbox"/> Read OpenStax Chapter 9 <input type="checkbox"/> Quiz 3: Chapters 6 – 9 (Skeletal System & Joints) <input type="checkbox"/> Due → Individual Project (Health Science Career Poster) due 03.06.26 by 11:59 PM <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 03.06.26 <input type="checkbox"/> Quiz 3 opens 03.06.26 and closes 03.08.26
<u>Week 8</u> Mar 9 th – 13 th <u>Spring Break</u>	<ul style="list-style-type: none"> <input type="checkbox"/> Sleep, rest, relax <input type="checkbox"/> Enjoy time with family and friends <input type="checkbox"/> Netflix, etc. <input type="checkbox"/> Exercise <input type="checkbox"/> Read a good book <input type="checkbox"/> Do something nice for someone 	
<u>Week 9</u> Mar 16 th – 20 th <u>Midterm Exam</u>	<ul style="list-style-type: none"> <input type="checkbox"/> Midterm Exam <input type="checkbox"/> Opens 03.18.26 and Closes 03.20.26 (Chapters 1 - 9) <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 <input type="checkbox"/> March 20 – Professional Development Day – Campus Closed 	<input type="checkbox"/> Midterm due 03.20.26
<u>Week 10</u> Mar 23 rd – 27 th <u>Muscular System</u> <u>Total Video Time:</u> 6 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 7: Muscular System <input type="checkbox"/> Video Quiz: Muscular System (Chapter 10) [5m 59s] <input type="checkbox"/> Read OpenStax Chapter 10 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.08.26 	<input type="checkbox"/> 03.29.26
<u>Week 11</u> Mar 30 th –April 3 rd <u>Muscular System</u> <u>Total Video Time:</u> 16 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: How the Muscular System Works (Chapter 11) [4m 45s] <input type="checkbox"/> Video Quiz: Muscles (Chapter 11) [10m 41s] <input type="checkbox"/> Read OpenStax Chapter 11 <input type="checkbox"/> Discussion Board 8: <input type="checkbox"/> Post 2 Comments on Individual Poster Projects <input type="checkbox"/> Due SOON → Work with group members on Group Project (Muscles Video) due 04.08.26 <input type="checkbox"/> Quiz 4: Chapters 10 – 11 (Muscular System) opens 04.03.26 and closes 04.05.26 	<input type="checkbox"/> 04.03.26 <input type="checkbox"/> Quiz 4 opens 04.03.26 and closes 04.05.26

<u>Week 12</u> April 6 th – 10 th Nervous System <u>Total Video Time:</u> 10 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion 9: Nervous System <input type="checkbox"/> Video Quiz: Nervous System (Chapter 12) [9m 22s] <input type="checkbox"/> Read OpenStax Chapter 12 <input type="checkbox"/> Read OpenStax Chapter 13 <input type="checkbox"/> Due → Work with group members on Group Project (Muscles Video) due 04.08.26 by 11:59 PM 	<input type="checkbox"/> 04.11.26
<u>Week 13</u> April 13 th – 17 th Nervous System <u>Total Video Time:</u> 11 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Discussion 10: Divisions of Nervous System <input type="checkbox"/> Video Quiz: Anatomy of the Nervous System (Chapter 13) [10m 26s] <input type="checkbox"/> Read OpenStax Chapter 14 <input type="checkbox"/> Read OpenStax Chapter 15 	<input type="checkbox"/> 04.19.26
<u>Week 14</u> April 20 th – 24 th Nervous System <u>Total Video Time:</u> 11 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Nervous System- Action Potential (Chapter 13) [11m 43 s] <input type="checkbox"/> Read OpenStax Chapter 16 	<input type="checkbox"/> 04.26.26
<u>Week 15</u> April 27 th – May 1 st Nervous System <u>Total Video Time:</u> 11 minutes	<ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Nervous System-Senses (Chapter 14) [10m 32s] <input type="checkbox"/> Read OpenStax Chapter 16 <input type="checkbox"/> Quiz 5: Chapters 12 - 16 (Nervous System) opens 05.01.26 and closes 05.03.26 	<input type="checkbox"/> 05.01.26 <input type="checkbox"/> Quiz 5 closes 05.04.26
<u>Week 16</u> May 4 th – 8 th Review	<ul style="list-style-type: none"> <input type="checkbox"/> Review for Final Exam (Chapters 1-16) <input checked="" type="checkbox"/> Double check your grades this week. <input checked="" type="checkbox"/> Be sure you have submitted all assignments and there are no mistakes. <input checked="" type="checkbox"/> A zero will be entered for any assignments not completed and will lower your overall average. <input type="checkbox"/> <small>soon</small> Contact me with questions, concerns, or to make up assignments <input type="checkbox"/> The semester is almost over. Finish strong! 	
<u>Week 17</u> May 11 th – 13 th Final Exam	<p style="text-align: center;">FINAL EXAM Opens 05.10.26 and Closes 05.12.26 (Chapters 1 – 16)</p> <p style="text-align: center;">Congratulations!! You made it!! Celebrate ☺</p>	<input type="checkbox"/> Final Due on 05.11.26 by 11:59 PM

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Quizzes = 20%
2. Discussion & Participation = 10%
3. Individual & Group Project = 20%
4. Midterm & Final Exam = 30%
5. Assignments (Video Quizzes, etc) = 20%

Total = 100%

Approved: **ZTG_120825**

GRADING SCALE

90-100 = A
80-89 = B
70-79 = C
60-69 = D
0 – 59 = F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

Quizzes and Exams in this course are administered through Blackboard. Exams will be administered with Respondus **LockDown Browser + Respondus Monitor (webcam)**

Requirements to take exams include:

- A reliable computer, desktop or laptop (phones, chromebooks, tablets, and iPads are not allowed).
- Windows: 10, 8, 7
- Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation)
- Web camera (internal or external) & microphone
- A reliable internet service provider. A broadband internet connection.
- A room to take the exam where you are alone (other individuals in the room are not allowed)

Watch these overview videos to understand the tools you will be using to take the exam.

Respondus LockDown Browser: <https://www.youtube.com/watch?v=XuX8WoeAycs#action=share>

Respondus Monitor: <https://www.youtube.com/watch?v=hv2L8Q2NpO4 - action=share>

Respondus LockDown Browser + Respondus Monitor (webcam)

Download Instructions:

- Select the quiz or exam in the course
- Under Quiz Requirements, you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"
- The quiz or exam will now start

Note: LockDown Browser only needs to be installed once on a computer or device. It will start automatically from that point forward when a quiz requires it.

Guidelines while taking online quizzes or exams:

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it.
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
- Remain at your computer for the duration of the test.
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again **before** the exam.
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims, or hoodies.
 - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move.
 - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete.
 - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.

The following violations during testing will result in a grade of zero or reduction in points:

- Using technology or electronic devices including, but not limited to, iPads, phones, smart glasses, earbuds, smartwatches.
- Leaving the testing environment or face missing from frame or obscured.
- Noises that might indicate external help.
- Any other questionable activities indicating cheating.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please

contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES

Course Requirements

- A Midterm and Final is required with two attempts given per assessment and uses Respondus Lockdown Browser. The final score will be an ***average of attempts***.
- Five quizzes will be given using Respondus Lockdown Browser with two attempts given per assessment. The final score will be an ***average of attempts***.
- Students will complete video quizzes and discussion boards for each unit.
- Students will complete an individual project and a group project. A deduction in points will be given for completing group project without partners.
- Late assignments, **except the final exam**, will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

Approved: **Initials/date**